

## SC-600W MPPT

# Solar Charge Controller

SC-600W MPPT solar charge controller uses PWM-based DSP controller to keep the batteries regulated and prevent batteries from overcharging and discharging.

Applying intelligent MPPT algorithm, it allows SC-600W MPPT solar charge controller to extract maximum power from solar arrays by finding the maximum power point of the array.

The solar charge controller facilitates a standalone energy system. Typical applications are listed below:

- Mobile applications such as moving van, lodge, log cabin, or night market.
- Lighting applications such as street lights, road lights, or garage lights.
- Remote village with power shortage.

### Features

- Intelligent Maximum Power Point Tracking technology
- Built-in DSP controller with high performance
- Automatic battery voltage detection
- Three-stage charging optimizes battery performance
- Auto load-detection
- Multifunction LCD displays detailed information
- Reverse polarity protection for solar panel and battery
- Overcharge and overload protection
- IP 43 protection for outdoor and harsh environment
- Suitable for battery types: sealed lead acid, vented, Gel, and NiCd



### Application diagram



### Specifications

Model	SC-600W MPPT
<b>INPUT</b>	
MPPT Range @ Operating Voltage	30 V ~ 66 V
Maximum PV Array Open Circuit Voltage	75 V
Maximum PV Array Power	600 W
Maximum Current	18 A
<b>OUTPUT</b>	
Nominal Battery Voltage	24 V
Connected Battery Type	Sealed lead acid, vented, Gel, NiCd battery
Maximum Charging Current	25 A
Maximum Efficiency	97.80%
Standby Power Consumption	2W
Charging Method	2 W
Ripple Voltage	Three stages: bulk, absorption, and floating
<b>PROTECTION</b>	
Overcharge Protection	> 110%, audible alarm
Polarity Reversal Protection @ Solar Cell & Battery	Yes
Overload Protection	Yes
<b>INDICATORS</b>	
LCD Display	LCD panel indicating solar power, output power, battery voltage, charging current, and fault conditions
LED Display	Three indicators for solar, charging, and load status
<b>PHYSICAL</b>	
Dimension (D×W×H)	220×170×57.5mm
Net Weight	1.85kg
Connector	Input/Output terminal block
Type of Mechanical Protection	IP 43
<b>ENVIRONMENT</b>	
Humidity	0 ~ 90% RH (No condensing)
Altitude	0 ~ 3000 m
Operating Temperature	-20°C to 55°C
Storage Temperature	-40°C to 75°C

Specifications are subject to change without notice.

OPTI-Solar Asia:  
Tel: +886-2-2246-7272  
Fax: +886-2-2246-7312  
info@opti-solar.com

OPTI-Solar USA:  
Tel: +1-909-869-5700  
Fax: +1-909-869-5730  
info@opti-solar.com

OPTI-Solar Middle East:  
Tel: +9714-8819-838  
Fax: +9714-8819-938  
info@opti-solar.com

OPTI-Solar SENA:  
Tel: +39 011 19874321  
Fax: +39 011 19785932  
info@opti-solar.com